

**REMARKS**

The Applicant appreciates the Examiner's careful examination of this case. Reconsideration and re-examination are respectfully requested in view of the instant amendments and remarks.

The position as set out by the Examiner in Sections 1, 2 and 3 of the Office Action is agreed.

With regard to Section 4 of the Office Action, claim 1 has been amended to cancel the wording objected to by the Examiner as introducing new matter. Alternative wording has been employed and claim 1 now requires that the lateral aperture positioned in the wall of the cylindrical member and the lateral aperture positioned in the wall of the sleeve overlap and define a triangular shape. This alternative wording does not introduce new matter.

With regard to Section 5 of the Office Action, the wording objected to by the Examiner has been cancelled, and replaced by alternative wording as mentioned above. The Applicant relies for patentability of claims 2 – 5 on the fact that these claims include all of the features of claim 1, and claim 1 is believed to be allowable. Claim 1 has been amended in the manner suggested by the Examiner in the last paragraph of Section 5 of the Office Action.

With regard to Section 6 of the Office Action, claims 2, 3 and 4 have been amended to meet all of the objections raised by the Examiner.

With regard to Section 7 of the Office Action, the Applicant has deleted the paragraph at page 4 lines 10 -- 13, including the reference that other shapes may be employed if desired. The Applicant has now restricted to the preferred triangular shape. This triangular shape occurs when the lateral aperture positioned in the wall of the cylindrical member and the lateral aperture positioned in the wall of the sleeve overlap. This wording is more restricted than the wording originally employed. This wording is also a correct description of what is shown in the drawings, and thus this wording does not add new matter. This wording is simply a more restricted description of what was originally specified in claim 1.

With regard to Section 8 of the Office Action, the Examiner has rejected claims 1 and 2 as unpatentable over Holscher, in view of Hillsman and further in view Minowa.

The Examiner agrees that Holscher does not show exactly what is in the Applicant's claim 1. More specifically, in the paragraph bridging pages 7 and 8 of the Office Action, the Examiner agrees that Holscher teaches a lateral aperture 96 in Figure 5 which is of a rectangular shape. The Examiner then says that the Applicant's original disclosure shows that a rectangular shape is equivalent to a triangular shape. This is denied. The Applicant's original disclosure on the deleted paragraph 4 made it quite clear

that the preferred shape is a triangular shape, and that other shapes (which are not preferred) may be employed if desired. The fact that other shapes may be employed if desired, does not detract from the fact that there is a clear statement that the preferred shape is triangular.

At page 8 lines 3 – 4 of the Office Action, the Examiner agrees that neither Holscher nor Hillsman disclose the triangular shape. The Examiner does however say that Minowa teaches a valve apparatus structurally similar to Holscher and Hillsman, and that Minowa teaches a triangularly shaped lateral aperture 17 of cylindrical section 15 (see Figure 9A, 9B and 22A). The Examiner then says that it would be obvious to modify the Holscher rectangular aperture 96 with the Minowa triangular shape. The Applicant respectfully disagrees with the Examiner.

More specifically, the Applicant's triangular shape gives very good fine control of the pressure. This is because the area created by a triangular aperture and a rectangular aperture when they overlap, not only defines a triangular aperture but also the overlapping area can be very gradually increased in size from the apex of the formed triangular aperture. If two square or rectangular apertures are placed on top of one another and they are moved to define a rectangular or square opening, then the initial area of the defined overlap is much larger because it has to extend all along one side of the two overlapping square or rectangular apertures. This means that the overlapping area is much larger than with the Applicant's

arrangement, and thus the degree of control is much less than that achieved with the Applicant's arrangement. If the Examiner should wish, we can provide diagrams to illustrate this point. The advantage of the Applicant's fine control is that fine control is achieved at low flows and high pressures.

Minowa was invented in 1989. Holscher was invented in 1995 which is six years later. However, Holscher did not adopt the Minowa construction. The Holscher control is basically a coarse on/off, on/off etc. control. Holscher and anybody reading Holscher would not be looking for fine control of the type achieved with a triangular aperture. Holscher only wants on/off control in order to get the whole of the pressure applied during inhalation, and a lower pressure during the entire time of exhalation. The problems solved by Holscher and Minowa are not the same and therefore their combination would not be readily effected. Hillsman is concerned with dyspnea (breathlessness) awareness. There is no reason or instruction to combine Hillsman and Minowa in the way suggested by the Examiner.

In addition to the above, it will also be noted from Figures 5 - 8, that the Holscher construction is extremely complicated. The Applicant has distinguished further over Holscher in the above amended claim 1 by specifying that it is the Applicant's sleeve which rotates on the cylindrical member. The cylindrical member acts as a bearing for the sleeve. This construction is simple and much different to that shown in Figures 5 - 8 of

Holscher. The Applicant's simplicity of construction gives manufacturing and operational advantages over Holscher.

Still further, the Applicant's claim 1 has been amended to specify that the longitudinal axis of the Applicant's motor is positioned apart from the longitudinal axis of the cylindrical member. This is a yet difference which is not shown in Holscher.


With regard to the latter part of Section 8 on page 8 of the Office Action, insofar as the Examiner has rejected claims 2 - 4, the Applicant relies for the patentability of these claims 2 - 4 on the fact that they include all of the features of the amended claim 1, and the amended claim 1 is believed to be allowable for the reasons expressed above.

With regard to Section 9 of the Office Action and the rejection of claim 5, the Applicant relies for the patentability of claim 5 on the fact that this claim includes all of the feature of the above amended claim 1, and the amended claim 1 is believed to be allowable for the reasons given above.

Each of the Examiner's rejections has been addressed or transversed. It is respectfully submitted that this application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with Counsel would help advance prosecution, please telephone the undersigned or one of his associates, collect in Waltham, Massachusetts, at (781) 890-5678.

Respectfully submitted,

  
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